

REMARKS/ARGUMENTS

This case has been carefully reviewed and analyzed in view of the Office Action dated 09 September 2004.

In the Official Action, the Examiner rejected Claims 1, 2, 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Kirk, Jr. (U.S. Patent #3,524,475) in view of Gnida, et al. (U.S. Patent #4,215,187) and further in view of Fanshier (U.S. Patent #2,522,258). The Examiner also rejected Claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Kirk, Jr. in view of Gnida, et al. and Fanshier and further in view of Guritz (U.S. Patent #3,289,287). The Examiner also rejected Claims 6 and 7 under 35 U.S.C. § 103(a) as being unpatentable over Kirk, Jr. in view of Gnida, et al. and Fanshier and further in view of MacDuff (U.S. Patent #2,893,433).

Before discussing the references relied upon by the Examiner, it is believed beneficial to first briefly review the structure of the invention of the subject Patent Application, as now claimed. The invention of the subject Application is directed to a pressure tank. In Claim 1, the pressure tank comprises an upper chamber, an inner chamber, a sealing washer, a stainless steel fluid connector, a leakproof ring, a stainless steel ring washer, an elastic diaphragm and a lower chamber. The upper chamber has a hole on top thereof. The upper chamber encloses the inner chamber. The inner chamber has an inward protrusion on top thereof. The inward protrusion has a through hole aligned with the hole of the upper chamber and a recession around the through hole

thereof. The sealing washer is installed between the upper chamber and the inner chamber. The sealing washer has a through hole aligned with the through hole of the inner chamber and the hole of the upper chamber. The stainless steel fluid connector is engaged through the hole of the upper chamber, the through hole of the sealing washer, and the through hole of the inner chamber in order. The leakproof ring is placed around a joint of the inward protrusion and the stainless steel fluid connector and received in the recession of the inward protrusion. A stainless steel ring washer surrounds the stainless steel fluid connector and overlays the leakproof ring. The elastic diaphragm is mounted on an inner side of the inner chamber and defines the upper chamber and a lower chamber. The lower chamber has an inlet for inputting air thereto. Wherein a bottom of the stainless steel fluid connector is riveted to press against the stainless steel ring washer to hold the leakproof ring firmly and secure the inner chamber and the sealing washer to the upper chamber.

In Claim 2, the stainless steel fluid connector of the pressure tank described previously includes a threaded section, a soldering section, and an engaging section. The threaded section of said stainless steel fluid connector is to be connected to a water pipe. The soldering section of the stainless steel fluid connector is mounted on a lower portion of the threaded section of the stainless steel fluid connector, and has a cylindrical shape and an annular recess formed therein (as shown in Figures 3 and 4 of the subject Patent Application) so that the soldering section of the stainless steel fluid connector may be

soldered on the tank body rapidly. The engaging section is engaged through the hole of the upper chamber, the through hole of the sealing washer, and the through hole of the inner chamber in order.

These structures are neither disclosed nor suggested by any combination of Kirk, Jr., Gnida, et al. and Fanshier.

In Kirk, Jr., an expansion tank is disclosed. The expansion tank includes an upper cylindrical body 11, a liquid-impervious/plastic liner 25, a threaded tank fitting 28, an O-ring seal 30, a flexible diaphragm 35 and a lower cylindrical body 17. The Kirk, Jr., reference does not disclose a sealing washer disbursed between an upper cylindrical body/upper chamber and a plastic liner/inner chamber or a stainless steel ring washer to compress a leakproof ring/O-ring. Further, the Kirk, Jr., reference does not disclose an annular recess on the threaded tank fitting 28 at welded or brazed location 32. Therefore, the Kirk, Jr., reference provides no mechanism of providing reinforcement to the tank fitting with a sealing washer, a stainless steel ring washer and an annular recess on the tank fitting so that the tank fitting can bear heavy weights and maintain a good seal, as provided by the invention of the Subject Patent Application. The Kirk, Jr., reference does not disclose the plastic liner/inner chamber having an inward protrusion which has a through hole aligned with the hole of the upper cylindrical body/upper chamber and a recession around the through hole thereof.

The Gnida, et al. reference does not overcome the deficiencies of Kirk, Jr. The Gnida, et al. reference discloses a gas-tight galvanic cell. The cell includes a lid 2 with a pole lead-through 1. The pole lead-through is riveted to the lid 2. The rivet includes a shaft 14, a rivet head 15, a ring shaped disc 17 and a sealing ring 19 (O-ring). The shaft 14 has a hollow 16 that is in the shape of a cylinder and terminates in a cone. Since the shaft 14 is not a conduit for passing a fluid such as a liquid or gas and in fact is constructed so as to be gas-tight, it is not obvious to utilize Gnida, et al. in the subject application except for in the case where it would be useful to pass a signal from a pressure transducer located inside the pressure tank through the tank wall so that the pressure tank retains its pressure. Further, the Gnida, et al. reference discloses the sealing ring 19 positioned between the lid 2 and the rivet head 15 and not between the lid 2 and the ring shaped disc 17. Still further, the Gnida, et al. reference does not disclose a sealing washer and an annular recess as provided by the invention of the Subject Patent Application.

The Fanshier reference does not overcome the deficiencies of Kirk, Jr. in view of Gnida, et al. Fransier discloses a tank gauge. The tank gauge is disclosed to be used in a tank 1 that has an enlarged reinforced opening 4. The reinforced opening 4 is threaded at 5 to receive a threaded fitting member 6. The Fransier reference does not disclose a sealing washer or a stainless steel ring washer. Therefore the Fransier reference provides no mechanism of providing reinforcement to the fitting member with a sealing washer, a

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stainless steel ring washer and an annular recess on the fitting member so that the fitting member can bear heavy weights and maintain a good seal, as provided by the invention of the Subject Patent Application.

Therefore, the combination of the Kirk, Jr., Gnida, et al., and Fanshier cannot make obvious the invention of the Subject Patent Application, as now claimed.

It is now believed that the subject Patent Application has been placed in condition for allowance, and such action is respectfully requested.

Respectfully submitted,

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Dated: 30 Nov. 2004

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